REMARKS

This amendment is submitted in response to the Office Action dated December 14, 2006. Reconsideration and allowance of claims are respectfully requested. In the office action, at page 2, the Examiner objects to the drawings, and specifically to Figs. 4B and 4C. This rejection is respectfully traversed.

Paragraph [0038], which describes these figures, states at line two that edge data may be referenced in one of two ways by using the novel approach of the present invention. Thus, the application gives an example, "Fig. 4B edge 80 equals 3<0,5>, and in Fig. 4C edge 80 equals e<1,0>". A comparison of Figs. 4B and 4C indicates that both this sentence and the figures are correct. The edge 80 in Fig. 4B is referenced to the lower vertex 42B, but the same edge data in 4C is referenced to the upper vertex 41C. Thus, the example cited by the Examiner, indicates the power and versatility of the present invention rather than being an erroneous example.

Claim 26 is objected to as being informal for being incomplete. Therefore, the cited claim has been edited to complete the statement.

The Examiner now rejects claims 1, 3-6, 9-15 and 18-29 as being non-statutory for failing to claim a practical application of the method that produces a real world result under 35 USC §101. The claims have been edited to eliminate this issue.

At page 4 of the office action, the Examiner rejects claims 1, 3-6 and 9-14 under 35 USC §112 as failing to comply with the written description requirement. According to the Examiner, the claims contain subject matter that was not described in the specification in a way to reasonably convey to ones skilled in the art that the inventor had possession of the claimed invention. The Examiner, at the last line of this section of the Office Action, specifically recites that the specification does not disclose an offset, which is unique to each of the neighboring primitives, as claimed. This is respectfully traversed. In addition to being disclosed the reference at paragraph seven of the application, paragraphs [0053]-[0057] of the application include a detailed analysis of how an offset, unique to each of the neighboring primitives is user specified, and can be used to specify consistent order of calculation for use of primitive processing, as

claimed. Therefore, it is respectfully submitted that this feature is clearly disclosed and in fact an important distinction over the references cited.

Claims 1, 3-6, 12 and 27-29 are rejected under 35 USC §102(b) as being anticipated by Huang, et al. (US Patent No. 6,825,839). Claims 9-11 are rejected under 35 USC §103(a) as obvious over Huang, et al. in view of Li, et al. (US Patent No. 6,262,737). These rejections are respectfully traversed. By this response, Applicant has amended claim 1 to include claim 3 to emphasize the distinctions between the claims and the art cited. Applicant has also amended claim 27 to further distinguish this claim and its dependant claims from the art. The Applicant has further cancelled several dependant claims and submits herewith new claims 30-37 to provide further features, which are not taught or suggested by the art.

The Applicant has defined a method and computer readable medium (see claims 15-26) for storing information needed for processing neighboring primitives. The scheme disclosed and claimed herein simplifies the storage of the vertices that define neighboring primitives and enables the orderly access of topology such as triangles and quadrilaterals, which share edges and vertices, to facilitate the processing and display of those primitives. The method includes a step of selecting a reference vertex, identifying neighbor vertices, assigning references and a sequential order to the neighboring vertices, and storing the primitives by storing the primitive vertices using the unique indexes selected. The unique neighbor index preferably includes an offset relative to the neighboring primitives which enables a consistent order of calculation during primitive processing of neighboring primitives and enables the processing of primitives to begin either at the reference vertex or primitive or anywhere around the ring of surrounding vertexes and primitives. This scheme and method is enabled by the fact that the offset is user-specified and is used to specify the order of calculation over one or more rings of neighbors of vertices and primitives to the reference vertex and primitives.

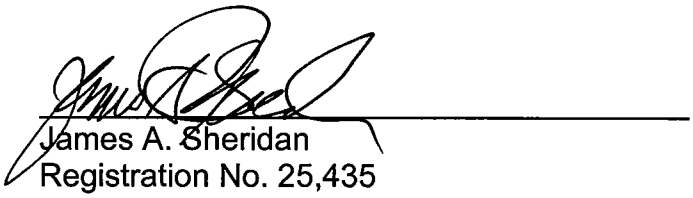
These features, especially adopting an offset that is unique to each of the primitives to enable the establishment of an order of calculation of the neighboring primitives or vertices is not found in either reference relied on by the Examiner. The Huang reference uses identified vertices (see column 2, line 60-65) for a process called

"skeletonization", by which is derived a skeleton of an input model where the skeleton is a fully collapsed body of the model. The details of the vertices and primitives are lost in this skeletonization. Huang does not store neighboring primitives by their vertices, define one-neighbor vertices, or assign offsets to these vertices to enable calculation of each of the primitives. Rather, Huang stores a sequence of vertices that is independent of the order of neighbors (see Fig. 6A). Each pair of vertices is used to contract an edge of a primitive so that by following steps B, E of Fig. 6, each of the edges is contracted to form a fully collapsed skeleton. This is in contrast to the features disclosed and claimed in the pending independent claims and emphasized in the dependent claims (see Claim 30). The vertices of the primitives are stored in one location. Such a feature, as claimed in the independent claims or found in the dependent claims, cannot be achieved in Huang. Huang does not teach storing the neighboring primitives by their vertices. Rather than processing and storing the vertices, Huang teaches only processing and collapsing of edges. The independent, separate vertex data is lost, not stored. The vertex data which is expressly available and utilized in the method claimed in the present invention can not be taught or made obvious by the teachings of Huang. The data which must be provided to carry out the claimed order of calculation is lost in the collapse of the vertex model carried out by Huang.

A review of the Li reference does not cure any of these deficiencies.

In view of these distinctions, reconsideration and allowance of the claims is respectfully submitted.

Respectfully submitted,



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